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PROBLEMS OF AIM IN ELEMENTARY EDUCATION[1]

A *general* or *inclusive* aim of elementary education each one of us could readily formulate for himself; and if we used sufficiently vague and general terms, we could probably all agree on some statement of such an aim, as, for example: The elementary school should so train and instruct the child whom it receives at six years of age that at fourteen he will be the kind of youth which he should be, in so far as the school can make him that.

But, though impressive and comprehensive, that is not a very helpful definition to serve as an aim of elementary education. I wonder, though, if it is not as helpful as any other definition of a general character, couched in general terms? Is it really worth while to try to formulate *the* aim of any education in terms expressive of vague psychological or sociological generalizations? Of what use to say that the chief end of elementary or of secondary education is "social efficiency," "character formation," "self-realization," "capacity for self-direction" or "good citizenship"? I suspect that, while for any individual of us each one of the above phrases may mean something different from the others, they would prove, nevertheless, practically interchangeable if we tried collectively to give them meaning. I believe that "holiness," "obedience," "honor," "common sense," "industry," "culture" and other similar omnibus terms could equally well, and with equal futility, be used to describe the controlling educational aims.

[1] Address given before the Elementary Teachers' Club, Teachers College, February 19, 1915.

We must, as I see it, learn to use the plural of our word. We must learn to speak of "aims." Furthermore, even here, we must beware of the seductions of general terms, if we would move with the scientific procession which, from my point of view, has the marching orders in education for the twentieth century. Most of us who write and speak on education to-day live in a lotus land of unanalyzed and untested generalizations. We have fed ourselves on poppy juice until the real and the unreal have blended in our minds indistinguishably. This is especially the case where educational aims are under consideration. Many a hard-headed superintendent or teacher whose practise exhibits the effects of sound and direct intuitions and a well-organized background of habit-forming experience, at once betakes himself to a cloudland of mysticism when called upon to write a paper or to make an address dealing with the broader aspects of education. He, too, must show that he has a "philosophy" of education, though a Socrates could speedily play havoc with him by means of a few questions as to the connections between his philosophy and his practise.

But it has been most natural and inevitable that we should reach a stage in the evolution of education where we would seek to find in a phrase the key to all truth. Medicine, politics, economics, religion, war —has not each sought to express its dominant aim in a word, and to give the clue to its whole method in a formula? This process is characteristic of the prescientific stage of every form of human activity. We become especially conscious of it when the

stage of faith aims begins to break up, and the stage of consciously scientific aims to supervene.

I think some of the most important problems of elementary education, and by long odds *the* most important problems of secondary education, to be stated and studied during the next few years will be those directed towards deriving, defining and testing the valid aims which should control in each case. We have for many years been giving serious study to the means and methods of realizing the traditional proximate aims of education. We have worked long and hard to make the best books, and to discover the best methods, to be employed in teaching algebra, Latin, geography, grammar, compound proportion and other established subjects. But now we face the baffling question, why teach these subjects at all? Why not teach something else? As a youth I struggled to learn cube root, the spelling of "erysipelas," the location of the Lofoden Islands, the distinction between object and objective. As a schoolmaster I have seen these objects of learning discarded. Our faiths in the validity of the school subjects—those serene, unquestioning faiths—are being questioned. I ask, "Why teach algebra to girls?" and am met by the half-petulant, half-distressed query, "Why teach anything to anybody?"

Almost all the aims of the elementary and secondary education of the past were expressed in terms of proximate ends—and the final values of these were taken on faith. The child was taught to read in order that he should be able to read the Bible or the newspaper or the Constitution. He was taught spelling in order that he might know how to spell. He was taught history because every one should know American history. He was instructed in Latin because educated men should know Latin. He was whipped because whipping made him mind the rules of the school. He was forbidden to whisper because he must learn his lessons without help.

Then the modern spirit began to ask—why?—at first haltingly and courteously, as befitted a generation stirred by conscientious scruples to get at underlying principles and causes, but also unwilling to disturb an order which was surely respectable, even honorable, because so old. There appeared the study of the philosophy of education—a subject which included comprehensive and authoritative generalizations as to the constitution of mind, and as to mental action. The ultimate aims of education were confidently stated, the mental processes involved in it were described with verbal precision. For many years the favorite indoor sport of educators has consisted in formulating the ultimate aims of education in terms borrowed from the fields of morals, politics and practical affairs, and all characterized by extreme generality and lack of tangibleness.

It is clear that we have not yet emerged from the era of educational faith, but we are on our way. We are becoming more disposed to consider specific educational aims. Even those of us who have lived most in fog-land are willing to admit that to teach a child so to use a pen that he can write legibly the words that he needs to convey his meaning to others may be an important aim of education in view of the value of such attainment in achieving results that by almost universal consent we hold valuable. We are even striving to analyze this aim into more specific aims—how legibly need the child write? with what degree of speed? Even more—we ask with what degree of legibility and speed he should write at eight years of age, at twelve, in the high school, on entering a commercial calling?

We are defining the aims of spelling by

defining the need which the average child, on the one hand, and, on the other, the youth seeking a vocation where ability to spell is a commercial asset, has need of this form of skill. Present prospects are bright that we shall soon have learned what are the really desirable objects to be achieved, in the one case, for all young persons, and, in the other, for groups with special needs, through the instruction and training which comprise arithmetic.

But, with the exception of those elementary school subjects, the objects of the study of which can be defined in quite specific forms of obviously serviceable skill —such as ability to read, to write, to spell, to apply the multiplication table, to use capital letters, and the like—are we not, even yet, quite in the dark as to the genuine educational aims which should control in our work? Many of the desirable aims of elementary education are doubtless implicit in such subjects as geography, history, literature, grammar, elementary science, hygiene, music, manual training and household arts, to say nothing of civics, morals, the Bible, school-room discipline, play, home study, class activities, the School Peace League, and the rest of the studies and activities which spring from, or, more frequently, are wished on, the elementary school. But, after all, how vague, indefinite, unsubstantial it all is! It is all good, yes; but how good, how necessary, how urgent? Take two of the oldest subjects in the above list, geography and history—do we know yet why we teach them, what under each it is important for all pupils to learn deeply, and what superficially? Makers of text-books and supplemental reading in these subjects overwhelm us with riches, to which we could easily devote a large part of the pupil's time, if permitted. The teacher is bewildered. She can get few clues as to what should be emphasized, what hastily surveyed, what neglected.

Is it not urgently necessary as regards these two subjects that educators forget or ignore their prepossessions, and study the social environment of the man whom the child will become, to ascertain what are in reality the valuable forms of learning which we call geography and history, which all should have? Is it not necessary that these ends be then discounted and reshaped as far as may be required to render them available as school aims, in view of the native capacities and limitations of the learner? Can historian or geographer do this work? I think not. It must be done eventually by one who can study with unbiased mind the needs of the individual in society, and the capacity of any group of children to be educated to meet these needs.

In other departments of school work the necessity for an examination of the actual demands to be made upon the individual by the society in which, as an adult, he is to live, or the opportunities which such society will afford him, is no less great. All over this country we are striving to teach music in all the grades of the elementary school. Why? As a profession, we school men do not know. Some of us are enthusiastic as to the possibilities of music as an uplifting and refining agency in the lives of men and women. But are we certain that we are judging on the basis of present and future conditions, rather than on the basis of conditions that are past and of diminishing significance? It seems to me that in the Golden Ages of music—folk music, people's music, music of work, love, worship, war and solace—no *teaching* of music was necessary, any more than it is necessary to *teach* wild birds their mating and social songs. Is it important that we strive at great expense of effort to keep bright a talent for which the world may

have little use, comparatively? Or perhaps it has much use for it in some form other than that founded on our pedantic standards. At present I am in a state of doubt.

It is, I think, to be seriously questioned whether the twentieth century can or will use the vehicles of emotional appeal as past ages have done. Music has been a powerful agent in inspiring and guiding men to work, to mate, to worship, to fight and to endure in patience. Can it still function extensively in future ages when these activities are more and more to be guided by exact knowledge, calculation of foreseen ends, and demands for unimpulsive action? I do not know; but the makers of the educational programs of the future must strive to find out, if their work is to be efficient.

The problems of aim for the educator may be likened to the problems of aim for the architect. The architect must know his general or composite aim in terms of the use, cost, quality, size and attractiveness of the structure he is to provide. He must vision it in its setting, material and social. But the architect's general aim is by no means a simple one. In his sleep he may dream of castles in Spain, as some of our educators dream by day of simple and glorified schemes of education, but in his waking moments he knows that his purpose is an intricate and complex problem and that he must proceed at once to think hard and technically of the thousand component problems involved. Foundations, walls, roofing—finishes, decorations, harmonies—stresses, supports, protections—lighting, heating, ventilation—availability, qualities and quantities of building materials—all these and hundreds of other problems of purpose, derived from his fundamental one, must concern him.

So must the educator of the future conceive and organize his problems. His large problem, indeed, is to make contributions towards the building of the right kind of men and women out of the boys and girls coming to him, and to do his building while many other builders—home, church, shop, press, stage, club, street, library, police—are at work on the same structure, sometimes helpfully, sometimes at cross purpose. But the general aim of the educator can only be defined in the light of a more adequate knowledge of society than it is yet given us easily to obtain—of society in its moral, economic, political, domestic, competitive, aspiring, worshiping aspects. This society he must know as the architect must know the uses to which his building is to be put. Then, too, he must know the materials he is to use, as the architect must know the steel and stone and wood and glass which he can command. Children, with their instincts, their frailties, their plasticities, their growth powers, their questionings; the accumulated knowledge and skill of the ages—in books, pictures, stories, vivid living personalities—all these are his building materials.

Some bright day an educator will appear who, knowing society, knowing children, and knowing the materials of teaching, will start us to defining the aims of education otherwise than in terms of vague moral generalizations, and otherwise, also, than in terms of the proximate knowledge of subjects as traditionally organized. He will define the ultimate composite aim of education in the elementary school period, for example, at great length and in terms of concrete values; he will then define scores of special aims all organically related to his general plan. His special aims will enable him to draw plans and write specifications for a true program of education.

Schemes of quite specific educational aims have, indeed, been evolved and crystallized as dogma and custom at sundry

times in past history—but always in societies aspiring to statie equilibrium, uninspired by democratie ideals, and unconscious of scientific methods. Australian tribe, Sparta, knighthood, medieval guild, English public school—all have done this thing. But we must do it in and for a society committed to an acceptance of the facts of evolution, aspiring to democracy, and resting its confidence in the clear light of scientific knowledge.

The immediate task for every thoughtful educator is to make some contribution towards reshaping and giving definiteness to the general aims of education, while at the same time studying concretely and scientifically, so as to ascertain their real values, various special aims. He must not hesitate to examine and criticize the general aims held up by educational mystics and obscurantists; nor must he cease from testing and valuing the proximate aims of the intense and near visioned workers and enthusiasts, who now control educational practise. He must free his mind from traditions, his voice from cant, his spirit from the childish folly of the world reformer. He must think clearly, build steadily, endure in great patience.

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THE PROBLEMS OF VOCATIONAL GUIDANCE IN THE SOUTH

WHETHER we discuss vocational guidance in the north or the south, in the east or the west, there lies at bottom the matter of human labor, drudgery and work. To attack the problems of vocational guidance in the south demands consideration, first of all, of the essential facts regarding human capacity for work and vocation. We may then inquire into what is being done in the effort to organize the vocational guidance of youth, and, lastly, we shall propose several topics for emphasis with regard to the extension of organized vocational guidance in the south.

Work to-day is distinguished from mere drudgery and toil. Drudgery is more familiar than work to millions of mankind because of their lack of opportunity, or lack of physical well-being, or because of mental arrest, or on account of maladjustment of individual and of activity. Ingredients of drudgery are too long hours, uninteresting tasks, unpleasant supervision. Work, at its best in human life, is something more than the mechanical conversion of energy such as motion of wheels into heat or light or electricity. Work means effort, conscious movement directed toward a remote goal. It is not mere painful movement nor is it an incessant insect-like being-busy that accomplishes little. Work at its best is not only purposeful activity directed to a future end, it is also activity tinctured with the spirit of play, and perhaps in the course of evolution both the physical and mental bases of work and play have a common development, as, for example, in the inborn tendency to constructiveness. This instinct of constructiveness has later developments both in the make-believe creations of childish hands and also in the production of things of value—houses, bridges, ships, which are largely too the product of economic pressure. The rich results of the work of the creative artist, or inventor, or statesman come through prodigious activities, and in these play and work have blended.

Experimental, genetic, pedagogical and social studies of work, physical and mental, recently have made clearer the meanings and significance of drudgery, toil, fatigue and of play. We know that work, defined as conscious effort toward a future reward, has uniformities in process, and a knowledge of these uniformities gives us *control*,

a result that is the ultimate end of many sciences. In efficient work there is always mental concentration, pleasurable interest, organization of details, elimination of non-essential movements. Work, with sufficient repetition and with sufficient intensity, tends to become more accurate, more speedy, less conscious, thus with every achievement equipping the organism for more and better work. The curve of progress in work has been plotted, the plateau of temporary halting—that abyss of failure to the untrained worker—the effects, generalized or specialized, of practise have been tabulated, the relative advantages of short and long periods at work, of different distributions of rest and activity—finally, the physical and mental factors and effects of excessive fatigue—all these topics suggest phases of work under systematic investigation to-day, even if not yet completely understood.

Vocation should mean life-work and nothing less. Life-work ideally is the actual adjustment of the individual through education meeting opportunity. They who undertake that new aspect of conscious evolution—organized vocational guidance—therefore are superficial in method if they do not understandingly unravel the tangle of interdependent factors that determines the career of boys and girls. *Opportunity* must be known, sifted, exhibited; this means a knowledge of economic and social conditions, of the status of local industries, commerce, trades, professions, occupations. The *individual* must be known; this does not imply a mere knowledge of that non-existent phantom the "average boy or girl" portrayed in text-books on psychology and physiology; it is a demand that we be able to know the individual by a method more sure than casual observation, phrenological chicanery or physiognomic delusion. In the study of individuals will be encountered also the complex factor of personal *choice*—an inevitable presence in all fitting of human beings into appropriate grooves or grooves to fit human beings.

These references to the nature and complexity of work and vocation considered as human capacities of superlative value prepare us to consider some specific observations that bear directly upon the problem of vocational guidance in the south. First, what is being done about organized vocational guidance in the south? In order to obtain the answer to this question our Division of Educational Research sent the following letter to the superintendents of schools in southern cities and towns:

Dear Sir: The problem of vocational guidance doubtless is an issue that is becoming more urgent in the educational work of our southern cities. So far as I know there is no definite organization or bureau for vocational guidance in any city of the south. In studying this matter, however, I am taking the pains to make inquiry, and I am therefore writing this letter to the superintendents of schools in the chief cities of the south.

Will you kindly answer the following questions?

1. Do you know of any definite effort undertaken by competent persons in your city to organize a bureau or department for the vocational guidance of boys and girls? If so, please send us as complete information as possible concerning the history of this organization.

2. Please write your opinion concerning the values, local difficulties, and probable outcome of the vocational-guidance movement in your city, if such a movement is on foot. What will be the best kind of provision of this kind for the south?

Your kind attention and cooperation will be appreciated.

I am

Sincerely yours,

David Spence Hill,

Director

This letter was mailed to forty-one superintendents in these cities of fourteen states: *Alabama:* Birmingham, Mobile. *Arkansas:* Little Rock. *Florida:* Jacksonville, Pensacola, Tampa. *Georgia:* Atlanta, Columbus,

Macon, Savannah. *Kentucky:* Covington, Lexington, Louisville, Paducah. *Louisiana:* Baton Rouge, Shreveport. *Maryland:* Baltimore. *Mississippi:* Jackson, Meridian, Vicksburg. *North Carolina:* Charlotte, Raleigh, Wilmington. *Oklahoma:* Oklahoma City. *South Carolina:* Charleston, Columbia, Greenville, Spartanburg. *Tennessee:* Chattanooga, Memphis, Nashville. *Texas:* Austin, Dallas, Fort Worth, Houston, San Antonio. *Virginia:* Lynchburg, Norfolk, Portsmouth, Richmond, Roanoke.

So far as revealing any considerable interest in the movement for organized vocational guidance, the results of this questionnaire are almost negative. Of the forty-one superintendents addressed replies were received from fifteen, distributed in: Richmond, Lynchburg and Norfolk, Va.; Charleston, S. C.; Raleigh, N. C.; Baltimore, Md.; Mobile and Montgomery, Ala.; Meridian, Miss.; Columbus, Ga.; Columbus, S. C.; Birmingham, Ala.; Little Rock, Ark.; Covington, Ky.; Houston, Texas—not including New Orleans, La.

Of the fifteen replying twelve indicated that no definite effort is being undertaken in their respective cities to organize a bureau, department or division of vocational guidance. One can not speak definitely of those cities from which no reply was received, but it is not likely that the movement has taken root in any city of the south except in two or three instances. Interest in the movement for organized vocational guidance or some local study of the problem was indicated in Birmingham, Little Rock, Houston and New Orleans. In one instance lack of adequate compulsory attendance laws and in another low finances were cited as obstacles to consideration of the matter.

Superintendent Phillips, of Birmingham, reports a committee on vocational guidance. This committee has been quite active and has accomplished results in securing information and data regarding local conditions of employment and in the directing of young people in the schools with regard to the selection of life vocations. "I regard the work of this committee as exceedingly valuable," writes the superintendent, "not simply in the way of securing information but in the practical assistance it has afforded hundreds of young people whose work in school, whose choice of studies and future life-work have been determined after serious consideration and consultation." Another important committee in Birmingham is a committee on vocational education representing the United States Chamber of Commerce. This committee has held meetings in conjunction with the vocational guidance committee of the public schools.

Superintendent Horn, of Houston, Texas, writes:

> I have always believed theoretically in the idea of vocational guidance, but I have never felt quite sure that the work has been so developed, up to the present, as to make it particularly valuable. In other words, we have been waiting for you, and some other gentlemen, to do a little more experimenting before our own city goes into it. I am interested in the subject, however, and should be glad to know anything that may be of value as to results obtained.

Superintendent R. C. Hall, Little Rock, Arkansas, writes:

> We are studying the question thoroughly and shall be ready to make some recommendations later.

In New Orleans, no separate bureau exists for vocational guidance. Definite preliminary work has been done, however, in five particulars under the auspices of the public-school system and by civic organizations. Since New Orleans is the largest City of the south a somewhat detailed consideration may prove interesting.

1. The Nicholls Industrial School for Girls recently organized in New Orleans,

during its first year undertook, through the efforts of the principal, Miss Rita Johnson, to inform, encourage and attract girls in the grades who had expressed a desire to go to the vocational school or who were about to depart. This industrial school effected this beginning by means of (*a*) form letters, (*b*) a special committee to give information and advice, and (*c*) by bringing groups of girls to observe the work of the vocational school.

2. In New Orleans the Young Women's Christian Association has recently published a booklet containing considerable information about certain occupations of women in New Orleans—a book intended to help young women to suitable occupations.

3. The Consumers' League also has gathered data concerning the pay-rolls, hours of labor, etc., of girls and women in New Orleans which it is intended to publish for local use.

4. Within the Division of Educational Research, Public Schools, for two years a system of systematic study of exceptional children has been carried on successfully. This cooperative method of studying children at the request of parents has been accomplished through the systematic cooperation of teacher, psychologist, physician and social worker. Data obtained from these four sources are collected for each child studied. So far this laboratory method has been applied chiefly to exceptional children in an effort to determine their capacity for education and possible aptitudes for vocations.

5. Finally, in New Orleans an organized effort has been made recently by Superintendent Gwinn cooperating with the Division of Educational Research, to obtain information and to enlist the cooperation of parents of more than ten thousand children thirteen years of age and over. The forms used for this purpose besides space for the conventional data regarding age, grade, etc., gain from thousands of parents a consideration of such questions as: occupation, if any, in view for the boy or girl; what the boy or girl wants to do or be; training, if any, already received for the occupation; intention of parent to send boy or girl to high school, college, industrial school, normal school, etc. There are four forms, two for the elementary schools and two for the high schools. The data thus obtained are to be used not only for analysis and comparisons, but also in the case of each school, as the basis of conferences, talks on vocation by the superintendents and selected speakers from various occupations.

In addition to this a renewed effort is being made to study the conditions involving each and every withdrawal from school for any cause. To this latter end, Miss Mary Railey, a trained social investigator, has been employed within the Division of Educational Research. For the high schools personal visitations are being made to homes to secure data concerning each individual eliminated. For the elementary schools a special questionnaire is being used.

All these efforts, it is hoped, will be coordinated usefully with the results of the vocational survey now being made in New Orleans for the Isaac Delgado Central Trades School for the establishment of which about one million dollars are available. Included in the final report of this survey will be data concerning all of the chief occupations open to boys in New Orleans. This phase of the report will constitute a basis for informational work in future vocational guidance.

We may now venture to state candidly some groups of important facts relevant to the inauguration of any complete organizations for vocational guidance of youth in the south—whether such organizations are maintained by the state, the city, the school

board or by private philanthropy. We refer to the following matters:

FIRST: *Special physical, social and economic conditions found in most of the southern states can not be safely ignored by constructive social and educational workers.* We refer to the semi-tropical climate, the varied topography and also to the historical perspective, the population, the presence of millions of the negro race, the predominating occupational tendencies, etc.

In the south objective opportunity is complicated by unique business and social conditions. New England, the West Coast, of course, also present unique conditions, but that large expanse of country called the south presents certain obvious characteristics that are singularly common to the vast majority of its area and citizenship. Each community, however, will always have its special economic and social problems, and these demand provision for local investigations. For example, it has not been much of a problem with us to assimilate great numbers of immigrants. According to the 1914 edition of the United States Census (Abstract, p. 89) in Mississippi, Virginia, Louisiana, Arkansas and Texas, North and South Carolina, Tennessee, Georgia and Alabama the numbers of the white population who are of American parentage range from 81 to 99 per cent. Massachusetts exhibits 33 per cent. of native American parentage, New York 36 per cent., Pennsylvania 56.5 per cent., Illinois 47 per cent., Oregon 64 per cent., California 49 per cent. These contrasts alone indicate that, first of all, we have in the south to deal with a predominating race in point of time longer imbued with American ideals and habits than the people of most of the other sections of the country. Therefore the south may be expected to exhibit a momentum which will prevent rapid innovations in education or vocation, whether imported from Europe or elsewhere.

Immigration of the white races to the south has been slow. Moreover, there are present in the south 87 per cent. of all the negroes in the United States, millions of negroes who constitute a large fraction of the local populations, whose bringing here was clouded with injustice and disaster. The presence of these negroes, aside from the frequent agitations aroused by a minority of white persons both in the north and the south, has always been and remains today a source of confusion, a factor in morbidity and mortality and of pedagogical and social difficulty. That state, city or town of white population which knows this race question as viewed only by observing the life of a small group of negroes does not comprehend the magnitude of the necessary problem weighing daily upon the white and colored people of the south. It is a source of felicitation to both the white and the negro races, in the south in particular, that relatively little of disorder, of friction, that so much of mutual cooperation and helpfulness, exist when every day so many millions of negroes are crossing and re-crossing the path of the ascendant white race. The successful struggle of the negroes in winning place in the vocations of life, in gaining financial independence and improving sanitation—all against difficulties and in many instances under pathetic conditions, has the approval, the sympathy and the assistance of the white race of the south. Nevertheless, the questions of vocational opportunities, guidance and choice are deeply complicated by the presence of this race. In the south, training for vocation, providing opportunities for vocation, guiding the young away from incompetence, shiftlessness, unhealthful, vicious and hopeless occupations, into effi-

ciency, energy, social service and individual realization, all these present two nearly separate groups of problems. This twofold problem makes difficult, although by no means renders hopeless, the situation in the south.

In the cities of the south the industries of manufacture and transportation now grow. Professional service, medicine, law, the ministry, teaching, engineering, also invite with large opportunity and higher standards. But the south so far is predominantly an agricultural region with here and there large mining activities and no inconsiderable fisheries. The cultivation of cotton, of sugar cane, the lumber industry, the extraction of coal, iron, salt, sulphur and crude oil, the fisheries of Louisiana, Florida, Alabama, besides the growth of cereals and food products, occupy the majority of our population, white and black. Most of the workers in these occupations need a general education, knowledge and habituation of hygiene more than specialized training for a trade or guidance thereto. Newcomers of brain and enterprise as leaders are helping our leaders to resuscitate and to establish industries, and these furnish varied and enlarging opportunities in the manufacturing and mechanical pursuits of our cities.

In the night schools of New Orleans the 1,500 boys and young men represent two hundred occupations, and it is observed that here, as elsewhere, there is a tendency to fall into commercial occupations, as messenger and office boys, clerks, etc., and to miss more independent and developmental vocations in the mechanical trades. This tendency toward the "white-shirt-and-clean-hands jobs" is disastrous when it is inculcated in the negro in his present stage of restricted opportunity, and is also unwholesome to thousands of white youth for both individual and social reasons. The tendency in our cities for boys not to enter mechanical, manufacturing or building trades is favored by four factors:

A. The absence of adequate apprenticeship and the lack of good industrial and trades schools. *B*. The predominance of unskilled labor in newly acquired factories, which is usually of low or middle-grade machine operatives. These machine processes are utilizing young girls as operatives more and more, offer inadequate remuneration to men and are consequently shunned by boys and men of capacity in favor of the clerkship. *C*. The stable nature of the population, so far as boys are influenced by the occupations of fathers, is a factor in leading the city boy into few modern occupations requiring new skill and knowledge. Of the children of New Orleans 59 per cent. of the fathers of thirteen-year-old boys and 86 per cent. of the boys themselves are living in the city of their birth. *D*. The indirect influence of the old-type elementary school, academy and high school and college which in the south perhaps more than in the north remains under the control of teachers of the classical wing in education.

Secondly: *Vocational guidance of a very real kind has long been in operation in the south, and the best elements of this guidance must be conserved.* It is the changing industrial and occupational condition and growth of population that demands a new organization. The genius of the south has always been for home-making. Apartment, hotel and tenement-house life are innovations. The plantation home, the cabin and plot of ground of the slave, the city mansion and the humble cottage, are all symbols of home life. Home, neighborhood, church and school associations have been and are potent factors in guiding the choice and opening opportunity for youth in the south. When such influences are intelligent and

able to make mental adjustment with the times, they embody the strongest types of personal appeal in vocational guidance. This note is perhaps sounded by Superintendent Chandler, of Richmond, who writes:

> I do not believe in the vocational guidance movement other than as it works itself out in the schools for definite work and the schools working to place these pupils.

And again by Superintendent Dobie, of Norfolk:

> When pupils are graduated from the seventh grade of our elementary schools and are prepared to enter the high schools we offer them some five courses and endeavor to advise, direct or assist them in making a choice suitable to their needs as to the course of study in the high school, learning as far as we can what they propose to do in life, and trying to prepare them, in this way, for it.

With the recognition of the necessity of some kind of definite efforts at vocational guidance throughout the country certain dangers are apparent in the movement. In the first place there are *quacks* not remote in principles and practise from phrenologists, astrologers and fortune tellers. More reliable, but not good leaders, are the *illuminists* who, really understanding by investigation something of the problems and methods of good, organized guidance, nevertheless almost unconsciously come to pose as self-authorized authorities, speaking ex cathedra. Then there are the *job-seekers*, who, collecting bundles of questionnaires, card indices and notes at six-weeks summer schools, return to the grade or high-school work of the local community, presently to appear as "lecturers" and even "specialists" and prospective directors and counselors for a local bureau.

It is indeed a difficult matter either for an individual or an organization to guide human beings successfully into their life work, so manifold and elusive are individual differences, so spotted with shoals are economic opportunities, so inadequate our expensive, slow-moving educational machine—and so ignorant are we of human nature. It is a delusion to believe because a proposition seems logical that the conclusion will prove satisfactory when applied to the individual human organism. It is a question whether theoretical, defective vocational guidance is harmful or worse than no guidance at all. On the other hand, our leaders and our efficient workers, many of them, have found their life work through the school of unchosen experience, that costliest of schools in which the survivors are a handful as compared with the multitudes who have succumbed to its curriculum. The waste of potential human productiveness, the presence of poverty, the absence of skill and knowledge in industry, the pretense in the professions, the misfits, and the wreckage of hopes, ambitions and love itself—some of these of late may be charged to the lack of organized vocational guidance, a necessity evoked by the complexity of our present civilization.

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THE ESSENTIALS IN THE TRAINING OF A TEACHER

OF the four learned professions, theology, medicine, law, teaching, and also admitting the rapidly growing new one of technology, the profession of teaching stands unquestionably first in its outlay and importance to the public weal. Most of the leaders in the above fields are found among the teachers. The number of persons engaged in teaching in the United States represents an army of nearly six hundred thousand men and women, and the annual outlay on public education is over six hundred million dollars. This

sum may seem small when compared with the one and a half to two billion dollars spent annually on the drink habit, and yet it is quite a respectable sum to be spent annually on the education or individual uplift of one's fellow man, and is much larger than that representing the other professions named.

All four of the learned professions were found side by side in the early medieval universities under the name of faculties; that of teaching under the head of faculties of arts, and of philosophy. From the first the degree of licentiate or master in arts was equivalent to that of the doctor's in law or in medicine, and carried with it the privilege of teaching anywhere in Christendom. These faculties grew up at a time when only a small per cent. of the people were educated—the official and professional classes—and the requirements for graduation from one were equivalent and quite similar to those of the others. These requirements were severe and demanded a high degree of scholarship and a fair degree of originality, but only those who had received the degree were permitted to teach. This occurred in Europe prior to the Renaissance; after that period the same high standards in the training of teachers came to be fixed in the schools. These standards brought to the teaching profession in the old country a dignity, stability and respect that it has not received in the new.

When education became more general and the masses received a share, the teachers were required to go through the same long and careful training. To become a teacher in the lowest grades of the Volkschule requires at least fourteen years of training in a carefully selected environment, and to become a teacher in the German Gymnasium (a school equivalent to our high school and college) requires no less than eighteen years of special training which can rarely be completed before twenty-eight or thirty. The length of these school years is ten and a half months, exclusive of holidays, and the work is so intense that only the bravest and best ever reach the goal. But, once admitted to the profession of teaching, the future of the individual is assured. None of the nation's public servants are more highly respected or given more weight in public counsel. These individuals have been not only carefully educated, but they have been selected by a process that allows only the stronger and more ambitious to sift through. From about the fourth grade on the pupils, who in the judgment of the teacher show greatest strength and inherent teaching ability, are encouraged to aspire for that profession. It brings to the youth good tidings of great joy. From that time forth he becomes the willing recipient of added attention and counsel from teacher, minister and parents. He is made to see that all his activities, good or bad, will come up to face him in the final examination which lies between him and the goal. He is happy in the extra attention, and his moral life becomes different from that of his less favored classmate. He is to be a member of a highly respected class, a teacher and leader of men.

With us the situation is very different. This country was settled largely by the middle and lower classes, and at a time when these classes possessed little or no education. Our schools were patterned after European models, schools that were meant only for the favored classes. These schools have been found poorly fitted to the needs of a democracy and are being remodeled on a different plan.

For the first two hundred years there were no institutions for the training of teachers. Then came the normal schools

for the training of elementary teachers, followed in the middle of the nineteenth century and later, with the establishment of public high schools, and in the closing part of the century with the establishment of departments of education in colleges and universities for the professional training of secondary teachers. Neither the normal schools nor the departments of education have shown the best intelligence in the work they have tried to do. The problem has been too large and the preparation for the task too meager. We have scattered our forces when we should have concentrated our interests. We have tried to cover too much, have done many things poorly when we might have done a few things well and have laid the foundation for a permanent structure.

In any European school, one is impressed at once with the uniformity of the age of the students, and the clearness and excellence of the teaching. The graduates of any Gymnasium will not vary more than one or two years in age, while the graduates of our colleges may vary as much as twenty years and the teaching is apt to vary from that of good to all degrees of worthlessness. From this product of variant ages we have tried to train our teachers. But we have failed and are still failing in the product we send forth. We may flatter ourselves and boast of our wonderful prowess, but the public is blessed with a fair degree of common sense, and is able to judge our worth. We may say teachers are born, not made—an untruth still believed by many—yet that gives no just reason for our existence and efforts.

In the making of a teacher the thing of chief concern is the making of a man, a man who feels keenly, thinks clearly, acts nobly, and aspires to live truly. It is only out of such material that the true teacher can be made. Teaching is enabling others to see and feel what you see and feel. It is living truly and putting the dynamics of such a life into the lives of others. It is the process of implanting into the souls of others worthy desires and lofty aspirations that will survive the wrecks of time. To accomplish this object we should begin early. We can not begin too early. I would start with the cradle roll, follow sympathetically every step and movement in the growth of the individual, surround him with an environment full of interest, but clean and wholesome. I should desire that my subject be possessed of good health and a good inheritance, but as for the rest I should be willing to accept the responsibility.

To understand and intelligently direct the growth of a plant or an animal, one must become familiar with its life history. This is even more true when applied to the education and development of the individual. To become a true teacher one must become a true leader of men. But his problem is still greater; beginning with the immature, he must so shape their growth and development that when they reach maturity they shall in turn become true leaders of men. In order to do this one must know the meaning of life, the nature of the individual and the end to be sought, and the means to that end. He must have a definite philosophy of life; one that explains the meaning and purpose of man, the facts and fancies, the ideas and habits, the beliefs and aspirations, that make up his physical and spiritual existence.

Life is an element of feeling, the primary condition of being, and is difficult to define. It is the vital principle or dynamics of the organism that conditions growth, the unifying force in man which binds together the physical and spiritual. The individual which represents both the organ-

ism and the environment can not be understood when studied as an isolated fact. Growth results from the interaction between the organism and its environment, by means of which both are modified. In this process of interaction between man and his environment there are four factors that should be noted: the surrounding physical environment; the surrounding social environment; the organism; and the self-active, organizing, directing force known as aspiration, longing, aim. The latter is the spiritual force which connects man to God.

Through inheritance individuals become increasingly sensitive to the stimuli of the environment. These stimuli are of three kinds: purely physical stimuli coming from nature; social stimuli coming from man and from nature as modified by man, hence surcharged with a content and meaning that influences the reaction; and the stimuli coming from within as the result of a growing organism. These stimuli are always present to the waking individual. The nature of the influence exerted is the result of many factors most of which can be controlled by the teacher without injuring the initiative or weakening the aspiration of the individual. But the teacher must understand the nature of these stimuli, how they may neutralize one another or be combined in their influence for good or bad.

The experiences of the child become educative only to the degree that the mind is self-active in their acquisition. Education consists in making over and utilizing experiences through which the individual comes into closer touch with, and gains greater control of, his environment. Education is a development that begins from within. It may be stimulated by influences from without, but it can not be forced. It is the process of relating means to end, of evaluating and adjusting experiences. There must be present in the mind of the learner at the time the experience takes place an end or aim to which all the material is selected and related. Then the product produced by the observations, comparisons, discriminations and generalizations will be and remain dynamic.

As to the end sought, I believe the purpose of education should be to make a self-supporting, self-directing, productive individual; happy in his life's work of service. Of such individuals there can never be too many.

Concerning the means to the end, where we lack most is in the method. If our schools educate, the recipients of a large part of that education do not function. We theorize and talk learnedly of the moral influence of education. But the students who take most of our teachings and receive the highest grades, go to the bad just the same as those who do not come under our influence. We are trying to do too much and lack in the best preparation if not in native ability. We have good intentions and a surplus of enthusiasm. Realizing our own shortcomings, we would prevent others from striking the shoals on which we have floundered. There is plenty of truth that would soon change the face of things if we could but grasp it and use it. While it is too late to reshape our own lives by it, it is not too late to reshape the lives of many of those whom we love and would guide. This search for the truth and the whole truth should not be virgin soil to the teacher. We can not teach without it. Nothing puts an individual in the attitude of a teacher quicker than the working out of an original problem.

Education in the home and through the various activities of life is much older than education in the school. It is also more natural and realistic. Education through

the activities of life has always been the chief source of supply. Even to-day, with the many schools and compulsory education, the education gained outside of schools is far greater than that gained in the schools, and it is also far more dynamic. The method is also different, the education acquired in the home and through the activities of life is informal, and that of the school, formal.

What is the difference in the two processes? In informal education, the knowledge gained is incidental to the activities and experiences. It is vital, changing every moment the viewpoint. It is truly cultural, being worked into the organism rather than merely stamped upon it. Through this process the individual learns to do by doing, to share by sharing, to think by thinking, to speak by speaking, to write by writing, to read by reading. It is nature's way and is true to her laws. The mind being self-active in the process gathers and organizes the material with reference to a definite end which supplies a special need or meets the aspiration of the individual. Through this process of informal education the individual comes into possession of most of his social inheritance, which when so acquired is dynamic and functions.

By formal education is meant the method used in giving instruction in the schools. Here the material is consciously selected, systematized, and orderly presented to minds in groups as though they were one. The reactions demanded are expected to be uniform, thus destroying individualism which is the very essence of all true education. Through ignorance, formal education is apt to degenerate into an artificial product of supposed facts most of which are not true, but when true are presented in such a way as not to take hold of the mind nor stimulate it to action. The process becomes an end in itself and fills the mind with material that does not function. Greater intelligence on the part of our teachers would enable them to discover how both methods could be combined, keeping the truth, and omitting the dross. Then we should have the true method of the expert, the scientist, and every intelligent man engaged upon his life's work.

In the development of the individual there are three important stages which I can barely mention: childhood, from birth to twelve or fourteen; youth, from fourteen to eighteen or twenty; early manhood, from twenty to twenty-four or twenty-six. The first is chiefly physical and selfish, a period of promiscuous gathering; the second is a period of transition, both physical and psychical, the breaking up of old and the taking on of new ideals, generalizing, organizing, idealizing; the last period is one of specialization, of balancing, weighing, selecting and entering upon one's life work. The mind acts so differently in each of these stages that the teaching can not be made vital which does not respect and supply these needs. At the beginning of adolescence the individual finds it necessary to work over all his social inheritance, adjusting it to the new viewpoint of life. The teacher must be alive to the needs of this period.

This is the field that one must travel in mind who would determine what is essential in the training of a teacher. This is only the academic side, but unless one has innate ability and has been taught in the way suggested he can never become a true teacher, however perfect his professional instruction. No one can teach what he does not know. Neither can any amount of professional instruction supply the need of academic training.

The first requisite in the training of a teacher is good health and lofty ambition;

the second, to come through training, is scholarship with right motives; and the third is professional skill in imparting knowledge and inspiring others to right living.

Coming to the professional part of the work, there have grown up three separate institutions covering quite naturally the three stages of the development of the individual as outlined above: the normal school, properly covering the last two years of a fourteen year course, and best fitted to train elementary, kindergarten and rural teachers; the undergraduate school of education in colleges and universities, covering the last two years of a sixteen-year course and specially fitted for the training of secondary teachers; the graduate school of education in universities, covering only graduate work—a fifth year—and fitting school executives and specialists in all higher grades of teaching. When these institutions discover their true mission and the problems for which they are specifically fitted, the overlappings and vagaries which now bring disrespect upon the profession will give way to one of confidence and good feeling.

Of these three fields the first is the largest, the most difficult and the most important. It covers nine tenths of the education of all the people. Up to the present, omitting the valuable studies covering the kindergarten, it has received the least attention. Its problems, especially those touching rural education, are just beginning to attract public attention and are worthy of the best thought of the best teachers. Unless the normal schools rise to the occasion the field will be preempted by others less fitted for the work.

When we divide the fields as here suggested, limit our efforts to the work for which we are best adapted, study our problems with the desire of obtaining the whole truth, unite in demanding the right kind of material with sufficient academic preparation, the difference in the output will be so marked as to call forth the immediate praise of the long-suffering public. Such a change would bring to our support the entire teaching force, a large part of which we do not now have. It would eliminate much of the waste in the professional training of teachers, materially reduce the cost, do away with invidious comparisons and the bid for numbers, stamp out the desire to cover the whole field, and add to the proficiency of the teaching in every grade.

The poor teacher is always a slave to text-books, which, as every one knows, never represent the latest thought on any subject. We give our best thought to-day, but before it is crystallized into a text we have passed on to a newer and better expression of the same truth. Hence the text-books are always behind us in thought. They are not meant to be slavishly followed or memorized, but like an encyclopedia or novel read and digested.

It will be seen that the professional subjects best adapted for one field are not the ones best adapted for the other. Until we know the nature of the individuals to be trained and their future fields of labor, we can be of little service in suggesting the subjects of study. The course here offered is only meant to be suggestive. For the normal schools covering the field indicated, the professional work might include a good elementary course in psychology, followed by one on child study; a course in pedagogy covering educational principles, theory and practise, the history and present status of rural and elementary education, school management; a course in methods reviewing the common branches with the thought of teaching them; and a course in actual practise which should be reserved for the last year.

For the undergraduate school of education in colleges and universities, open only to juniors and seniors, I would suggest a strong course in psychology followed later by one in applied psychology, an interpretive course in the history of education, a strong course on child study, a course in methods, including observation and practise-teaching, and a course in school administration; other courses might be elected as desired.

The function of the graduate school of education is to prepare principals, superintendents and specialists in all lines of the teaching profession; its chief work is one of investigation and research. Its members should have a professional foundation somewhat similar to that suggested for the undergraduate school of education, and in addition graduate courses in the philosophy of education, adolescence, advanced psychology, school hygiene, systems of education and some study in applied education or actual teaching. Here other courses might be suggested that would be more vital to some with different interests.

There is nothing discriminating in the title of a course. All depends on the teacher and the way it is handled. The history of education may be taught in such a way as to be helpful to all and enlarge the student's viewpoint, or it may be given in such a way as to load the mind with unusable facts which become a hindrance to further progress.

In my judgment the history of education is one of the most valuable courses in the training of secondary teachers, provided it is taught in such a way as to enable the student to see and appreciate racial development and the order in evolution of the more important instincts. This course followed by a course in child study, treated in a similar way to show individual development, the time and order of the instincts and their function in education, establishes a strong foundation for the professional education of a teacher. Teachers of education are not far apart in the fundamentals and aims to be sought, but they differ considerably in method or means to the end. But, as already mentioned, the value of any course depends largely upon the teacher and individual viewpoint, and should be open to modification and adjustment.

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SPENCER'S PHILOSOPHY OF EDUCATION

SPENCER has been called the philosopher of evolution. Even before Darwin produced his epoch-making book, Spencer was learning to look at life in all its varied phases as "a process of development toward equilibration." Darwin's ideas fell into prepared soil, and Spencer bent to his heroic life work, in the face of financial and physical difficulties, of applying the evolutionary hypothesis to the entire realm of knowledge. Biology, psychology, ethics, sociology—all came under the review of his systematic, organizing intellect. Through the lens of his philosophy men beheld a universe, where before there had been fields of more or less unrelated knowledge. Past became linked to present in an orderly process. And incidental to this vast survey Spencer gave a cursory glance at the current educational ideas and practises.

Present-day educational theory has accepted as fundamental the genetic point of view. The theory can hardly be said to have originated with Spencer, but it was natural that with his grasp of the meaning of evolution he should have immediately seen its significance. And it is a fact that though he does not use the words recapitulation or genetic, the ideas that these words

are associated with are fundamental to his views of education.

The genetic view of child development comes out clearly in Spencer's views on physical education.

> There is a given order in which, and a given rate at which, the faculties unfold. If the course of education conforms itself to that order and rate, well. If not—if the higher faculties are early taxed by presenting an order of knowledge more complex and abstract than can be readily assimilated; or if by excess of culture the intellect in general is developed beyond that which is natural to its age; the abnormal advantage gained will inevitably be accompanied by some equivalent or more than equivalent evil.

And elsewhere Spencer states the principle in its phylogenetic setting, as follows:

> The education of the child must accord both in mode and arrangement with the education of mankind, considered historically.

It is true that he proceeds to justify the principle by the false view of heredity to which he had committed himself; namely, the idea of the inheritance of acquired characteristics. But, after all, the attempted justification is only incidental; that he recognized the principle is the important thing.

The twin doctrines of interest and self-activity were also clearly grasped by Spencer. In fact, these doctrines had been wrought into his own education. His father had been an educational radical, and the boy had experienced little of the forcing routine of the system then in vogue. These two principles were linked to the genetic view, or arose from the latter as corollaries of it. Interest should be followed because it indicates the powers of the child in the given stage of development. Self-activity should be encouraged because it was by this route that the race progressed toward the goal of a rational civilization. In this connection Spencer stated the inductive method of education, as a guiding principle in method:

> . . . the mind should be introduced to principles through the medium of examples, and so should be led from the particular to the general—from the concrete to the abstract.

An important message that Spencer has for to-day is his estimate of what kinds of knowledge are the most worth while. Here again he chooses a genetic setting for his doctrine. Clothing was worn for ornament before its utility was generally recognized, and even to-day utility is disgracefully often subordinated to barbaric notions of ornamentation. So it has been with education. We have learned in order to clothe the mind in mental accomplishments that have only the fictitious values of popular styles. Knowledge having real utility—knowledge that may be indispensable to the proper ordering of life—has been overlooked that facts of Greek syntax or gossip concerning a bygone court may have a place in the curriculum. Nothing could be sounder than Spencer's position. The knowledge that is most worth while, as he classifies it, may be grouped more or less clearly under the headings: self-preservation, livelihood, parentage, social and political, leisure. Spencer has often been criticized because of a utilitarian appreciation of science and a failure to grasp the esthetic values in education. The criticism is unmerited. He places a high value on the esthetic, but rightfully places it as a final product of civilization, not as a means. And on the esthetic and even religious values of science he becomes enthusiastic.

> Devotion to science is a tacit worship—a tacit recognition of worth in the things studied; and by implication in their cause.

It is this recognition of the cultural value of science that saves him from a narrow conception of utility. Certainly there is no narrow utilitarianism in a philosophy that can phrase the following:

> But if there is a more worthy aim for us than to be drudges—if there are other uses in the things

around than their power to bring money—if there are higher faculties to be exercised than acquisitive and sensual ones—if the pleasures which poetry and art and science and philosophy can bring are of any moment; then is it desirable that the instinctive inclination which every child shows to observe natural beauties and investigate natural phenomena should be encouraged.

In the same passage he speaks of "this gross utilitarianism which is content to come into the world and quit it again without knowing what kind of a world it is or what it contains." Surely these are not the sentiments of one who has no appreciation of the truly cultural. Rather are these words a sign post, set up by one who knows the intellectual world, directing toward true and away from fictitious values of culture.

Spencer's great fault as a philosopher was one which very naturally arose from his attitude as a pioneer. Study of the great natural laws which govern the development of all nature, from the physical to the social, made him overemphasize their finality and at the same time to underestimate the power of man to mould nature to his liking. Hence he was a laissez faire thinker. Let the great universe alone to work out its will, and all will be well. Interfere only to insure the action of natural laws. But here he began to get tangled in a contradiction. If nature and her laws are so perfect and so transcendent, why interfere to see that they operate. Laissez faire logically pursued leads to annihilation of self. It takes from nature one great factor in the process of evolution that nature has chosen as her keenest instrument—the intelligent initiative of the human mind. After all, the laissez faire doctrine was but a passing phase of world thought; it had its value as a protest against ignorant meddling with social laws; it was in Carlyle's phrase the "everlasting no" to be followed by the "everlasting yes." So Spencer's attitude toward life has been superseded, though his view of life, patched a little where the lesser knowledge of his day has worn thin, is a permanent contribution. And it is America that has supplemented the Spencerian philosophy with the dynamic attitude of the masterly directive mind in the comprehensive system of Lester F. Ward.

Yet the philosophy of education that Spencer has given to the world has been only slightly tinged by his great failing. Here and there we find laissez faire cropping out, though usually, it must be admitted, in a way that is rational. Spencer's ideas about the feeding of children is an instance in point.

We contend that, as appetite is a good guide to all the lower creation—as it is a good guide to the infant—as it is a good guide to the invalid—as it is a good guide to the differently placed races of men—as it is a good guide to every adult who leads a healthful life; it may safely be inferred that it is a good guide for childhood.

This is a doctrine that we accept to-day with reservations. We know that nature has hewed the instincts in the rough, and has adapted them by a process of natural selection to the well-being of the individual in the general run of his experience. But when customary conditions change a little, then is instinct a fallible guide; and just because this is the case has nature developed intelligence. It is unreasonable that intelligence should abdicate the throne in favor of instinct, after nature herself had pronounced upon the succession. We know well that intelligence must check the natural instincts in the matter of appetite. We do not let our cattle feed upon water hemlock if we can help it, though they desire to do so. Nor do we turn our horses loose upon the oat bin, nor allow them to take freely of the other concentrated foods that the poverty of their native habitat safely gave them a taste for. The same

principle applies to the feeding of children. Instinct did not develop in the presence of the abundant artificial foods of to-day. The intelligence that has wrung from nature such a variety must supplement the instincts if danger is to be avoided. Not laissez faire, but the findings of an experimental science must rule.

One sees, too, in the doctrine of moral discipline through natural consequences a little of the prejudice of the laissez faire philosopher. Don't interfere with the child, we are told, let him suffer the consequences of his own actions—at least don't interfere very much. As Spencer has worked out the theory there is something to commend in it. But as the doctrine is commonly practised it results in a very concrete "consequence" in the form of some long-suffering neighbor taking upon himself the discipline of the child whose parent has abdicated responsibility. Here, again, intelligent observation of the results of various methods of discipline, and careful adaptation of means to ends, must modify a plausible theory.

It may be questioned whether Spencer's aversion to much intellectual training in early life is not overdone. Certainly his illustrations are overdone. He tells us of one young woman who studied so hard as to bring on fainting fits, which she later transmitted to her daughter. So the evils of youthful study are punished to the third and fourth generation! It was the erroneous theory of heredity previously referred to that was, of course, responsible for this error. We know now that a weakness that could be transmitted must have been constitutional, and could not have been originated by the overstudy. But passing by the erroneous illustration, the question remains as to the age at which direct intellectual training should begin, and the extent to which it should be carried in the early years. All admit with Spencer that health should not be bartered for knowledge, but beyond this axiom even authoritative opinion divides. Here, as before, experience and observation must ultimately decide.

The greatest contribution, however, that Spencer has made to the theory of education does not consist in any of the particular theories that he has presented so much as in the general point of view that he takes. He will have done his greatest work if he leads educational theory to take his point of view, even though in the light of the wider knowledge of to-day he may be overridden in his particular findings. This point of view, or attitude toward educational problems, that Spencer has given to the world is the sociological. Throughout his entire work he consistently endeavors to see society as a whole, and to found his educational theories upon such a conception. It is this endeavor, this suggestion of a method of approach, that may with the greatest of profit be gained from a study of Spencer. The present-day educator who has gained this viewpoint will not become a blind follower, but will begin the working out of the problem anew. In addition to the modern psychology that has so greatly illuminated the problem of the nature of the child, he will bring to his aid the rich results of the study of society in its evolution and present status that recent scholarship has produced. Thus a valid science of education becomes possible.

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EDUCATIONAL EVENTS

EDUCATIONAL LEGISLATION

The Bureau of Education has supplied information in regard to educational legislation as follows:

UNITED STATES CONGRESS

Bill introduced: H. R. 20496 (Wickersham). This *grants Alaskan public land* to the Territory of Alaska for educational purposes, and provides for an *agricultural college and school of mines in Alaska.* After the Alaskan public lands shall have been surveyed, sections 16 and 36 in each township will be reserved for the support of common schools. Several specified sections are to be reserved for the support of an agricultural college and school of mines, and certain land is reserved for the site of these institutions. This college and school will share in the benefits conferred upon similar institutions by the Land Grant College Act of 1862 and its amendments. A University Commission, to consist of the governor of Alaska, the Alaskan delegate to congress, and one person appointed by the Secretary of Agriculture from his department, is to recommend to congress a plan for the organization of these two institutions, and is to control and manage these schools.

ALABAMA

Passed the Senate: S. B. 129.—Providing for the reorganization of the county board of education. It provides that the board would consist of five members elected at large by the voters of the county instead of by the local school directors as at present. The county superintendent would not be a member of the board. The bill provides for his appointment by the board and that he would act as its executive officer. The proposed board is given increased powers over the existing county boards, particularly in the matter of fixing school district boundary lines, consolidating schools, and in the employment of teachers. The bill proposes that the county board employ all teachers for the county.

S. B. 130.—Proposing a constitutional amendment authorizing the various counties of the state to levy a special county tax for school purposes, not exceeding 50 cents on each $100, in addition to the 10 cent tax now allowed. It permits any incorporated city or town districts, or rural districts under the county board, to assess local taxes to be used in the district, provided that a county tax of at least 30 cents has been levied on the county as a whole. Under the present law no tax district smaller than the county is recognized.

S. B. 131.—Providing for a state board of education to be composed of seven persons, none of whom may hold salaried educational positions, appointed by the governor with the approval of the senate, for seven year terms, one term expiring annually. The superintendent of public instruction would be secretary and executive officer of the board but have no vote. The proposed board replaces the present state normal school board, the county high school board, and the district agricultural school board, and would act as an advisory board to the state department of education. Members would serve without pay.

S. B. 168.—Under the provisions of this bill an illiteracy commission would be provided, consisting of seven persons appointed by the governor. This commission would make a special study of adult illiteracy in the state and promote measures for its eradication. The commission is authorized to receive gifts, but no appropriation is made for its work.

NEW HAMPSHIRE

Bills introduced: S. B.—*Teachers' Pension Bill:* Any woman 55 years of age, having taught in the public schools of New Hampshire or any other state for 30 years, 15 of which, including 10 years preceding retirement, have been in the public schools of New Hampshire, will, upon retirement, receive as pension for the year ending August 31, 1916, an amount equal to 50 per cent. of the average salary received during the last five years preceding her ceasing to teach. Men will receive pensions under the same terms except that men must be 60 years of age and must have taught 35 years. Superintendents of school districts will be considered as teachers under this act. Any teacher of the required age who has not taught the required time, but who has taught 15 years in the state, including 10 years immediately preceding retirement, will receive a pension in proportion to the time employed. Any teacher forced to retire because of physical or mental disability before the above re-

quired age will receive a pension in proportion to the time taught plus the time of enforced retirement. To receive a pension, the teacher must hold a state teacher's certificate, a service certificate as authorized by state law, or any equivalent certificate issued by the chief educational officer of another state or country, but this requirement will not be demanded of those who have now permanently ceased to teach. $10,000 is appropriated for the fiscal year ending August 31, 1916, for the pensions and administration of the act. Payments are to be made quarterly, and if all teachers qualified for pensions can not be paid, the oldest will have preference. The pension will terminate at the death of the recipient, but the proportional part due will be paid to the legal representatives of the deceased.

VOCATIONAL COURSES AT WELLESLEY COLLEGE

At the third annual assembly of the Wellesley Graduate Council there was a discussion of the question of introducing certain vocational courses into the curriculum of the college. According to the report in the Boston *Transcript* Miss Alice V. Waite, dean of the college, opposed the introduction of additional courses on the ground that other institutions offer excellent opportunities for special training to students with definite aims; that Wellesley can not afford to develop additional equipment required for such courses, and that there is little demand from students for them. Certain courses in science, hygiene, music, art and education offered at Wellesley serve as elementary training towards vocations and many so-called "cultural" courses may be pursued with vocational ends in mind. For best ultimate results in education the student needs the four years of humanistic training in order to find herself before beginning the special training for vocational or professional work.

Miss Helen Bennett, manager of the Collegiate Bureau of Occupations in Chicago, advocated the introduction of certain more technical courses on the ground that economy of students' time and money make it desirable; that purely technical schools fail to give enough cultural training to save from narrowness and poverty of resource when students come in contact with the sordidness of the world; that not only state institutions, but those privately endowed, show a tendency to add such courses; that college curricula must adapt themselves by such innovations to the demands of modern life.

Miss Jackson, of the Women's Educational and Industrial Union, vocational adviser to Wellesley College students, recommended four years of college training with additional technical training for all who can afford it, technical rather than college training for the student who must choose one or the other in order to gain immediate financial returns. At the end of five years of employment those receiving highest salaries are usually found to be students who have had both college and technical training, though students with technical training only usually command higher salaries than students with college training only. A general discussion followed the addresses.

APPROPRIATIONS FOR THE UNIVERSITY OF MINNESOTA

The appropriations made by the Minnesota legislature for the year 1914–15 and those asked for the year 1915–16 (being approximately half of the needs for the biennium 1915–17) are as follows:

Purpose	1914-1915	1915-1916
23/100 *Mill tax*—Estimated for other years by state auditor	$335,194	$335,000
For Maintenance—A general maintenance fund supplementing other revenues and applicable to any university purpose. Needed for increasing the number of the teaching staff and increases of salary	483,000	611,200
Fuel (University and University Farm)—Increase in buildings on both campuses necessitates additions to both heating plants and provision for increased coal consumption	60,000	90,000

Special University Maintenance Appropriations—For law and general libraries, repairs, hospital support, research and publications, books and apparatus, university extension, mines support and experiment station, geological survey	231,000	289,000
Special Agricultural Maintenance Appropriations—For agricultural extension, repairs, library, and many groups of experimental projects.....	185,000	207,550
Buildings and Equipment:		
(*a*) Main campus	352,500	198,000
(*b*) University farm	162,725	84,050
(*c*) Substations	72,350	53,600
Agricultural Schools and Substations—For detailed statement of building funds requested	92,900	125,775
Total for each year	$1,974,669	$1,994,175

The following statement is made in regard to the maintenance fund:

1. This fund is used for general support throughout the institution.

2. Increase of students has kept pace with increase of faculty, as a whole; in some colleges numbers have outrun teacher increase. Increase of faculty from 1912 to 1914 was 15 per cent.; students increased by approximately same percentage. Result no gain in efficiency.

3. Science, literature and arts has one teacher for 80 student registrations; normal standard, one teacher for 50 to 60 registrations. Thirty-six new teachers would reduce ratio 1 to 60. Hoped to reduce ratio to at least 1 to 70 registrations.

4. If number of students continues to increase, the additions are needed even to maintain the present unsatisfactory situation.

5. College of agriculture has grown faster than teaching staff. Demand in home economics especially pressing. Eight additions to agricultural teaching force needed.

6. Engineering also shows growth.

EDUCATIONAL NOTES AND NEWS

DR. CHARLES H. ELLIOTT has been appointed professor of the science of education at Rutgers College, to succeed Professor Alexander Inglis who has become assistant professor of education at Harvard University.

MR. JAMES E. DELZELL, recently state superintendent of public instruction in Nebraska, has accepted an appointment to take charge of the special department for training grammar grade teachers, in the Wisconsin State Normal School at Stevens Point.

PROFESSOR ISAIAH BOWMAN, now in charge of geography at Yale University, will at the end of the current academic year remove to New York and join the staff of the American Geographical Society as director of the society's work and librarian.

DR. ADOLF VON BAEYER, professor of chemistry in the University of Munich, has retired from the active duties of his chair on reaching his eightieth year.

THE annual meeting of the Wesleyan University Club of New York City, on January 28, was in honor of the fiftieth anniversary of the graduation of Dr. William North Rice, professor of geology.

TWO members of the university of Chicago faculty have been appointed to important commissions in Chicago by the mayor of the city—Professor Emil G. Hirsch of the department of semitic languages and literatures, to the morals commission, and Professor Charles R. Henderson, head of the department of practical sociology, to the industrial commission, which will give especial attention to the present problem of unemployment in the city.

PROFESSOR ARTHUR KEITH, F.R.S., conservator of the Museum of the Royal College of Surgeons of England, will deliver, during the latter part of March, a course of five lectures upon the bearing of recent discoveries on our conception of the evolution and antiquity of man. The lectures will be given under the terms of the Macbride Foundation in Western Reserve University, Cleveland.

MASAHARU ANESAKI, professor of the philosophy of religion in the Imperial University of

Tokyo, is giving the Haskell Lectures at the University of Chicago, the general subject of the series being "Buddhism and Its Influence on Japanese Thought and Life." Professor Anesaki is himself a Buddhist and has been the past year exchange professor at Harvard University. This is the eighteenth series of Haskell Lectures on Comparative Religion to be given at the University of Chicago, the lecturer last year being Dr. Christian Snouck Hurgronje, of the University of Leiden.

DR. FELICE FERRERO lectured at New York University on February 19 on "Galileo and the Struggle between the Old Science and the New."

ON February 11, Dr. Jane Addams, of Hull House, Chicago, lectured at an assembly of the College of Liberal Arts and Sciences of the University of Illinois on the subject "Civic and social service in its professional aspects."

THE next convocation orator at the University of Chicago will be Professor Myra Reynolds, of the department of English in the university, who will give the address at the ninety-fourth convocation on March 16. Professor Reynolds, who is a graduate of Vassar College, was for two years an instructor in English at Wells College and for seven years at Vassar. With the opening of the University of Chicago in 1892 she became a fellow in English and in 1895 received her doctor's degree. In this year also she was made an instructor in English literature and was later promoted successively to an assistant professorship, an associate professorship and a full professorship. Dr. Reynolds is the third woman to be chosen as convocation orator at the university, the first being Her Excellency, the Countess of Aberdeen, and the second, Miss Jane Addams, head of Hull House, Chicago.

DR. BERNARD C. EWER, professor of philosophy at Reed College, has accepted an invitation to take the place of Professor Everett, head of the department of philosophy at Brown University, for the academic year 1915–16. Professor Hudson B. Hastings is now at the Harvard University Graduate School of Business Administration on Sabbatical leave from Reed College. He will return to the college next summer and will offer courses in commerce and industries.

IN the medical department of the University of Oregon, Dr. J. M. Connolly has resigned as professor of physiological chemistry and Dr. H. D. Haskins, of Western Reserve University, Cleveland, has been elected his successor. Dr. B. L. Arms has resigned as professor of bacteriology to accept a position in the University of Texas and Dr. W. H. Norton, of Johns Hopkins Medical School, has been appointed to the vacant position.

JOHN JASPER, for twenty-three years superintendent of schools in New York City, died in Washington, D. C., on February 7. Mr. Jasper was born in New York on August 11, 1837, and from 1842 until the time of his retirement on a pension from the position of superintendent in 1902 he had been connected with the public schools of the city as pupil, teacher, principal, assistant superintendent and superintendent. Among the recommendations made by him were the reorganization of the evening schools; the consolidation of the small schools and departments; the assignment of regular teachers to give instructions in French, German, music and drawing; the formation of three truant schools and a reformatory school; the taking of a school census; the revision of the course of study; the promotion of pupils without examinations; the revision of regulations concerning air space and floor space in new buildings; the revision of method of licensing, appointing and promoting teachers; provision for the regular conferences of principals with their teachers; the improvement of laws relating to compulsory education, and the eligible list for promotion of teachers and for the appointment of principals.

MISS HELEN M. FANNING, who had been since 1889 school principal in one of the public schools of New York City for thirty-eight years, died on January 27. Miss Fanning, who was sixty-eight years of age, was a daughter of the late John H. Fanning, for many years assistant superintendent of schools.

PROFESSOR JAMES IRVING MANATT, head of the Greek department of Brown University,

died on February 14 at the age of seventy years. Professor Manatt was chancellor of the University of Nebraska from 1884 to 1889. He had been professor of Greek literature and history at Brown University since 1892. He was the author of "The Mycenæan Age," with Dr. Tsountas, and was editor of "Xenophon's Hellenica."

THE REV. GEORGE WASHBURN, for more than thirty years president of Robert College, Constantinople, died on February 15 at the age of eighty-one years.

M. ALFRED M. TOURNIER, former professor of viticulture in the University of California, has been killed in the war.

ON the Richard B. Westbrook Free Lectureship of the Wagner Free Institute of Science, four lectures on Invisible Light, illustrated with experiments and lantern slides, are being given by Professor Robert Williams Wood, of the Johns Hopkins University, on Tuesdays, February 9, 16 and 23 and March 2.

AT the summer school of the Kansas State Normal School held at Emporia from June 3 to July 30 lectures will be given as follows:

Dr. Henry Suzzallo, Columbia University, New York City: "The Social Aspects of Education." June 7, 8, 9, 10, 11.

Dr. Henry H. Goddard, director of Vineland, New Jersey, Training School: "Defectives, Retardation and Intelligence Tests." June 14, 15, 16, 17, 18.

Dr. Zebulon Judd, county superintendent and professor of rural education, University of North Carolina: "Rural Education." June 28, 29, 30, July 1, 2.

Dr. W. A. Jessup, dean of school of education, University of Iowa: "Economy of Time in Education." July 7, 8, 9.

Dr. Henry S. Curtis: "Plays and Playgrounds, their Place in Education." July 12, 13, 14, 15, 16.

Miss Flora J. Cook, principal of the Francis W. Parker School, Chicago, Ill.: "Primary Education." July 19, 20, 21, 22, 23.

A SCHOOL in which mutilated soldiers may learn suitable trades and employments has been established by the French government, and part of the National Convalescent Institution at St. Maurice on the Marne, founded by Napoleon III. in 1857, will be devoted to the instruction of soldiers prevented by the loss of limbs from following their former trades. Mr. Otto H. Kahn has placed at the disposal of a committee appointed to care for and educate soldiers and sailors who have been made blind in the war his London residence, which has fourteen acres of ground. The committee, which is under the chairmanship of Mr. C. Arthur Pearson, honorary treasurer of the National Institute for the Blind, has raised a fund to "teach the blind to be blind." The men are being taught to read and write and are being instructed in typewriting, farming and other useful occupations, besides learning sports and games.

A CLASS in English for alien children on Ellis Island, New York, was opened on February 12. A public school teacher is in charge. There are 25 children in the class, which is instructed in a room in the administration building. The adults go to school in the afternoon. Desks and books have been provided by the board of education. This is the first time the federal government has opened a school for temporary wards, for these pupils are not immigrants and will be deported to their homes in belligerent countries after the war.

SUPERINTENDENT CONDON, of Cincinnati, has entered into negotiations with Mr. R. B. Irwin, supervisor of the education of the blind at Cleveland, with a view to obtain his services for a part of the time to more thoroughly organize and direct the education of the blind in Cincinnati, both that of children and of adults, in the form of continuation schools for general and vocational education.

THE Illinois State Association of County Agriculturists held at the end of last month its annual session at the University of Illinois. Fifteen counties of the state of Illinois were represented by their county advisers. From now on the work of these men will be closely linked up with the College of Agriculture and the Federal Department of Agriculture. A state leader, Mr. W. F. Handschin of the university, has been appointed to have general charge of the demonstration work in agriculture throughout the state. The demon-

stration work in household science throughout the state will be in charge of Miss Mamie Bunch of the household science department of the university. These will be the organizations and officers that will have the administration of the money that will come to Illinois from the federal government and state government under the provisions of the Lever bill.

ONE hundred and eighty men and women are attending the Winter School of Agriculture in session at the Massachusetts Agricultural College. Eighty-eight per cent. of this enrolment is composed of men; 80 per cent. of the total persons enrolled come from Massachusetts; there are also represented seven other states, the District of Columbia, the Hawaiian Islands and Canada. Twenty-five per cent. of those registered have attended or graduated from other colleges and universities; an additional 34 per cent. have a high school education. Sixty per cent. of those enrolled are between the ages of twenty and thirty.

STUDENTS intending to become teachers of elocution and public speaking when candidates for their first degrees may now major in public speaking as in other departments by recent action of the University of Wisconsin faculty and board of regents. Former limits in this department made it hard for students to secure enough work to train them for teaching positions. Under the new conditions a good foundation will be laid for graduate work, and satisfactory preliminary preparation is afforded for a profession in which the demand for well-trained teachers greatly exceeds the supply.

DISCUSSION AND CORRESPONDENCE

MEASUREMENTS, STANDARDS AND TEACHING

THIS is a scientific age. Not only is the classification of knowledge in various fields proceeding with great rapidity and increasing accuracy, but the truths thus established are being utilized in all fields of social and industrial activity. The teaching profession is just beginning to feel the influence of this tendency.

Educators have long followed a system of classification and of measurement of teaching results that is far from scientific or accurate. Since teachers are attempting to produce changes in their pupils through teaching processes, they must, in order to proceed intelligently, determine either by personal judgment, daily marking, examinations, or tests, the amount and kind of change that they are producing. It is admitted by every one that the means used have not been reliable measures of the condition and progress of individuals or of schools. The attempt is now being made by psychologists to devise reliable tests of mental ability, both general and special, for persons of different ages, and educators are also trying to devise standard tests of knowledge and ability in the various school subjects. At the present time a reasonable degree of success may be said to have been reached in a very few lines, notably in the Binet tests of mental age, the Courtis tests in arithmetic, and the Thorndike and Ayer tests of handwriting. In these lines there is still room for improvements, while in many others scarcely a beginning has been made. Many years must elapse before simple and reliable tests in all lines of ability and education will be developed and come into general use.

Let us suppose, however, that there are tests that are entirely reliable, psychologically and pedagogically. In what way, then, will the teachers' aims and practises be affected? With the means of measuring achievement and with standards based on averages for each age and grade, what shall the teacher strive to accomplish? How may she make her work more effective? If tests of many thousands of children show that children of a certain age and grade have attained, on an average, a certain grade of penmanship, and are able to work a certain number of problems of a given kind per minute, does this determine what the teacher should try to get her pupils to do, or must other things be considered?

Evidently the standard reached by the pupil of to-day is, to a considerable extent, the result of spending a certain amount of time in practise according to the usual methods. With a different schedule of work and different methods of teaching, quite different standards

might be reached. In order to know what standards *should* be reached other researches must be made. This is strikingly shown by the results of an examination given to some of the most prominent citizens of Springfield, Illinois. The questions were taken from the seventh-grade course of study and not one of those successful men was able to pass the examination. Few studies have yet been made to determine whether the average business man of to-day has a higher or lower standard of proficiency in penmanship, arithmetic and spelling, etc., than that attained by the average pupil in school. Until such social studies shall have been made we can not tell whether the standards established by testing school children are too high or too low. Corresponding studies of the proficiency needed in various lines by men and women of to-day and the special needs for various vocations must be made.

Supposing these to have been made, we have not yet settled the question of what the teacher should attempt to do. Should she attempt to bring all her pupils up to the average standard that has been established, or should she attempt to bring each individual up to as high a standard as he is capable of reaching, regardless of whether it be high or low? Is it sufficient if the average for her school is high, or would it be better to have as many pupils as possible close to the average, with none very much above or very much below the standard?

The more common belief, assumed rather than stated, seems to be that a standard once determined should be an ideal toward which the teacher should strive to bring her pupils. I wish to question this fundamental assumption and to affirm that standards are valuable only to facilitate comparison of measurements that have been made.

In the first place, it may be admitted that in the industries it is highly desirable to produce standardized products, but at the same time we may question the desirability of having our schools produce definitely standardized human products. Even if it be admitted (which is not done here) that it is desirable to have an individual standardized for the occupation in which he is to engage, it may be questioned whether in general education we desire to produce a standardized man or a standardized woman. Individuality has been one of the greatest factors in evolution and is one of the most important social assets of any people. No doubt the tendency to individuality is so marked that it would be utterly impossible to entirely suppress it, but there might be great waste of time and energy in the process of trying to suppress it.

In the second place, it may be remarked that even in the industries and in commerce, measurement, where possible, is often better than standardization. For example, the dairy business has been greatly interfered with in some places by laws requiring a minimum standard of richness for all milk sold. It is not profitable to the keeper of the cows to produce milk much richer than this, and it is difficult to keep close to the standard without falling below it. In other places the milk is tested and the price fixed by exact measurement of the quality. Laws requiring that foods and drugs of various kinds shall be properly labeled are much more effective than those fixing a single standard to which they must conform.

In education, where there has been no exact means of measurement, it is rather surprising to find that there has been a general attempt to establish and maintain certain arbitrarily chosen standards. A pupil must attain a certain minimum standard mark in all subjects or in certain subjects in order to enter the next grade, in order to enter high school or to enter normal school or college, and in many instances he must attain the minimum standard in certain subjects before he is allowed to take other subjects. In the field of physical training we have had more accurate means of measuring, but standards have played a far less part. Although a pupil of a certain age may not be able to jump six feet in a standing broad jump, yet he is permitted to attempt the running jump, and his failure to attain the average standard in that does not prevent him from attempting the high jump. Neither is he required to run a hundred yards in so many seconds and jump so high before he is permitted to attempt the hurdles. In this field

it is recognized that the individual's standard may be quite different from that of others of his age, and that failure to attain the average in one line is no reason whatever for refusing to allow him to develop himself by other forms of exercise. Still further, it is recognized that there is no reason why an individual should be held to a given form of exercise after he has ceased to make progress and no reason why he should be kept at one exercise until he perfects himself in it before he is allowed to try another.

Is there not the same ground for saying that a teacher should not attempt to have all pupils reach a certain standard of speed and accuracy in penmanship, addition, etc.? The teacher should aim not so much at having pupils reach an average or minimum standard as at having each pupil engaged in study or practise that will yield the greatest amount of improvement for the time and effort spent. There is no reason why a pupil who is still making rapid improvement should cease that form of exercise because he has reached the standard. Neither should a pupil who is below the standard but is making little appreciable advance, be made to work on that one thing until the standard is reached, no matter how long it takes.

Generalizing, we may say that standards are not to be regarded as ideals for teachers or pupils, but merely as a means of comparison in the process of striving to attain the ideals of the individual.

With this point of view established, we now turn to the question of the use the teacher may make of the means of measurement placed or to be placed in her hands by psychologists and educators. Every conscientious teacher has periods of doubt and discouragement in which she questions whether she is accomplishing anything or not, while vain teachers are frequently very confident of wonderful results which others are not able to see. It would be of great advantage to both classes of teachers to make tests by which they could compare their pupils with those of other schools, and to test their pupils at different times in the year to determine the real progress they have made. The more accurate self-judgment that such measurements render possible would of itself be an encouragement or stimulus to each teacher.

It would also render intelligent methods of teaching much easier, since after using a certain method for a certain length of time a definite amount of progress can be detected by these measurements. The teacher may then measure the progress of another group of pupils when taught by another method for the same length of time, and thus intelligently decide as to which is the better of the two methods.

Again, she may find by experimentation that after a certain amount of progress has been attained under one method of teaching, a change in method will increase the rate of progress.

In some cases these results may be true for the whole class, while in other instances great individual differences will be observed and the teacher may intelligently decide how long various individuals may continue their practise and whether a change of method or a continuance of the same method is best for them.

These advantages to the teacher of being able to measure the attainments of her pupils are supplemented by similar advantages to the pupils, especially as they grow older. If there is a simple and accurate means of measuring the attainments and progress of a pupil, he can get the benefit of a knowledge of what he can do as compared with other children of his age and those in his own class. He becomes increasingly able to judge of his own ability as compared with that of other children, and is continually stimulated to do better in some lines or in all lines than others, or than he himself has been doing. Such development of self-knowledge on the part of the children and young people is a natural and effective stimulus to effort, in marked contrast to the present artificial stimulus of trying to get the favor of the teacher in order to pass. Well-founded self-knowledge may also be the best possible means of vocational guidance. In general, then, we may say that if the tendency to regard standards as ideals is successfully resisted, numerous advantages will come from the development and use of tests and standards.

Notwithstanding the enormous advantages to be gained from the proper use of educational measurements, administrators need to guard carefully against dangers that will otherwise quickly arise. Tests of the more mechanical results of teaching will be developed first, and if superintendents are not careful, teachers and pupils will be stimulated to effort in those lines at the expense of other forms of educative activity. There is ground for believing that a good teacher can produce improvement in mechanical lines without spending much time in drill exercises, but if this view is not kept before teachers and if their success is measured by the tests that are first developed, the first results of using scientific measures of educational progress will be bad rather than good. If, on the other hand, the point be emphasized that the attainment of certain standards is not the aim of teaching, but that they are merely a means of measuring some of the less important results of a given amount and kind of educational effort, nothing but good can follow the use of measurements and standards in education.

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QUOTATIONS

RURAL SCHOOL SANITATION

IN 1911, the National Council of Education of the National Education Association appointed a committee on health problems in education. At the same time the Council on Health and Public Instruction of the American Medical Association appointed a committee to cooperate with the National Education Association on this subject. These two committees, acting as a joint committee, have for three years been working in this field. The significance and practical value of the coordination of the efforts of the teaching and medical professions of the United States is apparent. The possibilities of such cooperation can hardly be overestimated. After careful consideration, the committee was unanimous in feeling that possibly the most important and certainly the most neglected field in school hygiene was the problem of rural school sanitation. When an effort was made to formulate plans and remedies, however, it was soon realized that although every one was agreed as to the paramount importance of this field, there was little, if any, definite information available regarding actual conditions. It seemed necessary, therefore, that before any remedies were proposed or even discussed, a reasonable amount of data should be secured. Fortunately these conclusions were completely in harmony with the views and policies of the United States Bureau of Education. As Hon. P. P. Claxton, the commissioner, was a member of the joint committee, it was possible to develop a plan for the study of rural school conditions in which all the forces interested could unite. During the spring of 1913, a field secretary employed by the joint committee made a careful statistical and photographic survey of about one hundred rural schools in four eastern states. At the same time, Professor F. B. Dresslar, of the Peabody College for Teachers of Nashville, Tenn., special agent of the federal Bureau of Education, was collecting a large mass of material on country schoolhouses in different states. Additional material was secured from various sources, principally through state boards of health. All of this information has been carefully collated, with the result that Bulletin 12 of the United States Bureau of Education, entitled "Rural Schoolhouses and Grounds," contains in its two hundred pages probably more information on this subject than has ever before been collected. For the details of this survey, the large mass of illuminating facts brought out and general conclusions drawn therefrom, the reader is referred to the report itself, which can be secured from the Bureau of Education at Washington. As a result of this study, the joint committee of the National Education Association and the American Medical Association has prepared a statement of minimum requirements for rural schools, being a summary of those conditions of location, construction and equipment which are the very least that should be tolerated in

rural schools. This pamphlet can be secured from the Bureau of Education at Washington, from Dr. Thomas D. Wood, of Columbia University, New York City, or from the American Medical Association. For the first time in the history of education and sanitation in this country, a reasonably comprehensive collection of facts regarding the sanitary condition of rural schools has been made and a standard of minimum sanitary requirements formulated. Parents, teachers, school boards, health officers and the general public have now been given a standard easily applied and within the physical and economic possibilities of any community. Adoption of this standard is the very least that can with decency and fairness to its children be expected of any community. As this standard becomes recognized through the distribution of these pamphlets, it will in a few years be possible to estimate the relative degree of development in any state by the condition of its rural schools. There are many other questions to be considered in solving the health problems in education, but persons interested in the sanitation of rural schools may feel gratified at the substantial and definite progress which has been made through the joint committee in the last three years in this field.—*The Journal of the American Medical Association.*

BOOKS AND LITERATURE

PUBLIC HIGH-SCHOOL EDUCATION IN COLORADO

Professor William A. Cook, High-School Visitor, has recently completed a comprehensive study of the public high schools of Colorado. His report is published as Vol. XIV., No. 10 of the *University of Colorado Bulletin.*

Of the survey, Professor Thompson, in the prefatory note, says:

> The desirability of a survey of high-school conditions in Colorado has been discussed for several years by the High-School and College Conferences and in a way has been prepared for by the keeping of such reports as could be collected. This last year's field work has been focused upon this purpose. . . . The aim from the first has been the making of an inventory, the "taking of stock," educationally. The value of surveys in education, as well as in all other lines of endeavor, has been seen for several years past, and each new survey seems to be undertaken in a more scientific spirit. This survey was asked for by men anxious to know just where we stand that we may see better what to do next. The aim throughout has been to avoid all sweeping adverse criticisms, and to present all findings with as little bias as possible.

The report shows that there are in Colorado 249 high schools—20 county, 26 union and 203 district—of which 71 are accredited. About 17,000 students, or approximately 7 per cent. of the school population, were enrolled in these high schools in 1913–14; of these 25 per cent. were in Denver. About one student in 25 is carrying on his work in a school offering less than the customary four years. Not over 15 per cent. of the enrollment lies outside of the accredited schools. A map showing the location and kind of schools is a valuable insert. Less than one sixth of the area of the state is within ten miles of an accredited high school and not much over a half within 25 miles of such a school. In one county students must travel 52 miles by rail and 75 miles by stage to take advantage of the county high school. In another county a rail trip of 266 miles—a journey of 24 hours—takes the ambitious youth to his county high school. The result of such conditions is that students are attending other high schools and paying tuition charges ranging from $1 to $6.50 a month.

Interesting tables showing financial support are given. The annual maintenance cost for each student varies from the average of about $70 to $358 in one union high school. Outside of Denver, Pueblo, Boulder and several small schools, there was spent in 1913–14 for instructional apparatus over $19,000, and for libraries, $5,600. Of 1,202 graduates out of the whole number of 1,900, from all Colorado high schools in 1913, 399 went on to college, 322 to Colorado colleges; and 135 are teaching.

Much valuable information concerning teachers is given—their preparation, tenure, subjects they teach, experience, average num-

ber of students per teacher, salary and personality.

Other divisions of the report consider the course of study, supervision and the school's contact with the community.

This general survey should establish facts which may lead to marked improvement in secondary education in Colorado. To teachers, as well as principals, superintendents and members of school boards, it brings information which can not but prove of practical value.

EDUCATIONAL JOURNALS

AMONG articles in educational journals for February are the following:

The Educational Review

The university and the public: Frederick J. E. Woodbridge.

Secondary school composition: Carolyn M. Gerrish.

The teaching of history in the elementary school: James A. Wilgus.

Education for the control and enjoyment of wealth: Witt Bowden.

Languages and the college-preparatory course: John D. Fitz-Gerald.

The vocabulary of two years: Thomas Percival Beyer.

The School Review

A comparative study of the mathematical abilities of boys and girls: J. H. Minnick.

An evaluation of methods for providing free high-school tuition: Julian E. Butterworth.

Reed College: William T. Foster.

Vocational guidance in Boston: Frank V. Thompson.

The society of college teachers of education.

School Science and Mathematics

The mission of science and education: John M. Coulter.

Materials for a course in animal husbandry: W. H. Smith.

Mathematics and life—the vitalizing of secondary mathematics: R. D. Carmichael.

Mathematics and life: W. T. Stratton.

The mathematics survey of the Chicago school system: Mabel Sykes.

College chemistry for the general student: E. A. Strong.

Experimental chemistry simplified: C. C. Kiplinger.

The purpose of political geography: Walter S. Tower.

A simple method for showing $a = v^2/r$ for circular motion: L. T. Jones.

Problems in teaching practical biology: Nettie Cook.

A useful piece of apparatus: Floyd L. Darrow.

High school dieteties: Ada Hillier.

Laundry work in the Flower technical high school, Chicago: Elsie M. Garlick.

Teaching of food through preparation of meals: Agnes Wilson.

Home economics question box: Minna C. Denton.

The History Teachers Magazine

The library and history study: W. Dawson Johnston.

A fragment of the passing frontier: Dr. Mary W. Williams.

The last American frontier: L. A. Chase.

Points of emphasis in teaching government in the west: Arthur C. Millspaugh.

Early methods in teaching history in secondary schools: Professor W. F. Russell.

Community civics—what it means: Arthur W. Dunn.

Military organization of the Roman empire, the teaching of Roman history, VI.: Dr. George H. Allen.

Book reviews, edited by Professor W. J. Chase.

Reports from the historical field: Walter H. Cushing.

History teaching and the great war: Joseph A. White.

EDUCATIONAL EXHIBITS OF THE DEPARTMENT OF COMMERCE AT THE PANAMA EXPOSITION

EXHIBITS of educational and historical interest will be installed at the Panama-Pacific International Exposition by the Department of Commerce. In the Food Products Building will be found a large exhibit by the Bureau of Fisheries, the Palace of Machinery houses an extensive display from the Bureau of Lighthouses, and in the Palace of Liberal Arts will be found exhibits from the Bureaus of Standards, Navigation, Census and Foreign and Domestic Commerce, and the Coast and Geodetic Survey. The magnitude and excellence of its showing is largely due to the energy and activity of its official representative, Dr. Geo. C. Havenner, the chief clerk of the department.

The exhibit of the Bureau of Standards is planned from an educational rather than exhibition point of view, and experts of the bureau will be in constant attendance to instruct and explain regarding matters of standards and measurements, as related to trade, commerce, industrial processes, and scientific work. It will consist of three distinct sections. The first will comprise standards and methods of measurement, including weights and measures, electricity and magnetism, heat and thermometry, optics and chemistry. The second will be a model weights and measures outfit, including that of both city and state officials, together with an exhibit of the method of inspecting weights and measures, and in this connection, a number of fraudulent weights and measures ordinarily found in use will be shown, together with methods and devices whereby the purchasing public may protect itself against them. An exhibit of structural and engineering materials, with a view to educating the public as to the proper specification and use, as well as the standards and methods to be employed in testing them will make up the third section, and in this connection there will be erected a hollow brick pier to illustrate the capacity of the bureau's testing machines and to show the results of a breakdown test.

An amateur radio station and a ship radio station which meet all the requirements of the law will be exhibited by the Bureau of Navigation with the assistance and cooperation of the Bureau of Standards, and demonstrations of the use of the department's inspection instruments will be made to show the method of determining compliance with the law, serving to illustrate the precautions taken by the government for safety at sea. In addition to this there will be exhibited a typical station such as is found in commercial use to-day and in contrast thereto a strictly modern equipment, designed by government experts, with a particular view to demonstrating the application of the latest developments in the art.

Illustrating its work in Alaska, the Bureau of Fisheries will exhibit an excellent and comprehensive collection of Alaskan furs valued at several thousand dollars. To exemplify the general work of the bureau, there will be a number of large aquarium tanks in which will be displayed various fishes to be found in American waters, and to demonstrate practical fish propagation, there will be troughs for hatching salmonidæ, tables equipped with jars for shad and pike, perch, tidal boxes for cod, and hatching batteries for white fish. Models of the cars, vessels and apparatus of the bureau will be shown, collections illustrative of the various fishery industries will be exhibited, and there will be displayed charts, maps and pictures illustrating the work of the bureau and extent of the fisheries.

One of the principal features of the exhibit of the Coast and Geodetic Survey will be the automatic tide gauge which is to be housed in a suitable pavilion on one of the wharves which face Yacht Harbor, an artificial basin abreast the Agricultural Building. This gauge will be connected electrically with a tide indicator mounted on the exhibition space in the Palace of Liberal Arts and will show thereon the stage of the tide in San Francisco Bay, serving to illustrate one of the means by which the Survey furnishes local tidal data to maritime associations. A small tide predicting machine, tide rolls, photographs of the large tide predicting machine, etc., will be shown also. The various instruments used by the Survey in its field work will be shown mounted as in field use, and views of surveying operations, views of chart construction and finished charts will be included in the exhibit. There will also be on hand for free distribution, a publication entitled "The Work of the Coast and Geodetic Survey" and a map of San Francisco and bay with a sub-sketch of the exposition grounds.

The Bureau of Lighthouses will have a comprehensive exhibit of the various articles used for the protection of shipping along the sea coasts, on the Great Lakes, and in the navigable inland waters of the United States, such as bells, horns and whistles, the different kinds of lamps and lanterns and the lenses used thereon, the various types of buoys and the moorings used on light vessels. A set of

lamps will be shown illustrating the advance in lighthouse lamps. Of special historical interest will be the first order fixed lens and the second order flashing lens, each the first of its kind to be used in the United States and both used at Navesink, N. J., and also the third order fixed lens which was the first lens used on the Pacific coast, at Alcatraz Light Station, California. The different types of lighthouses will be illustrated by models of Fowey Rock, Minots Ledge, Spectacle Reef and Tillamook Rock lighthouses. The whole exhibit will be supported by some 50 enlargements of recent photographs.

Different types of tabulating machines used by the Bureau of the Census will be shown in operation by that bureau. Certain charts and maps will be exhibited, one of the most interesting of which doubtless will be a large map of the United States with an electrical apparatus for the flashing of a light thereon to indicate the frequency of deaths from certain preventable diseases. One feature will be the exhibit of certain of the interesting historical records of the Census Bureau.

In order to illustrate and make clear its methods of collecting and disseminating information for American merchants, manufacturers and exporters, the Bureau of Foreign and Domestic Commerce will have on exhibition a map of the world, eight feet high by nineteen feet wide, one of the largest maps of the world in existence. On it will be shown the locations of American representatives abroad, including the ambassadors, consuls and consular agents of the Department of State and the commercial attachés and traveling commercial agents of the Department of Commerce. These sources of information for American business will be connected with Washington by various colored cords. The cities of the United States in which branch offices of the bureau are located will be similarly connected with Washington, indicating the manner in which the information is furnished to those interested in foreign trade. Photographs of American machinery in foreign countries and of the unloading of goods at various ports will be shown by an autoprojectoscope and by the same means will be shown slides illustrating, describing and explaining the different publications of the bureau. A miniature office work file will make clear the methods used in giving widest publicity to the information collected. Two cases of samples will be exhibited, one of shoes from South America and one of articles from Bombay formerly imported there from Germany and Austria-Hungary but now shut off. The samples from Bombay include certain cotton goods such as shawls, blankets and rugs, umbrella ribs, frames and handles, combs of all colors and sizes, pocket knives, razors, etc.

The Bureau of the Census, the Bureau of Standards and the Coast and Geodetic Survey, in addition to the exhibits described, will illustrate the work of their respective bureaus by lantern slides.

EDUCATIONAL RESEARCH AND STATISTICS

UNSTABLE DIASTOLIC BLOOD PRESSURE AND FEEBLE-MINDEDNESS

THIS is the report of a study which seems to show a relationship between feeble-mindedness and unstable blood pressure. A possibly interesting feature about it is that it was undertaken with quite different purposes in view and the present findings are a by-product of the original investigation.

In the spring of 1914, working at the laboratory of physiology at the University of Pennsylvania, I made blood-pressure tests of 206 girls at Sleighton Farms, a reformatory near Philadelphia. The object was to study the relation of blood pressure to nutrition during adolescence. The girls were from 7 to 18 years of age, the great majority being from 14 to 18, and they were living under ideally hygienic conditions as to food, exercise and sleep.

Careful records were made of the age, height, weight, vital capacity, skin condition, and blood pressure of each girl. The blood-pressure tests were made by the auscultatory method in which the ear, aided by a stethoscope, detects five successive phases of sound

which accompany the movement of blood in a compressed artery. In these experiments the artery used was the radial. Pressure is made by forcing air into a bag which is placed about the upper arm in the form of a wide cuff; the bag is connected with a glass tube containing mercury and the amount of pressure in the bag is determined by means of a sliding scale which measures in millimeters the displacement of the mercury column.

Blood exists in the vessels in a state of pressure due to liquid being pumped into partially contracted elastic vessels. There are two parts to this pressure: the systolic, which follows a wave-like rise and fall according to the contraction and relaxation of the heart pump, and the diastolic, which expresses the constant lateral pressure against the walls of the vessels by the blood stream. The diastolic pressure tends to maintain a level far more nearly than the systolic, which varies in its height according to emotional conditions, time of day, atmospheric conditions, exercise, meals, and so forth.

In making tests by the auscultatory method, the systolic pressure is read at the highest point, or maximal contraction, and the diastolic at the lowest point, or complete relaxation of the heart. These two points are indicated by distinctly different sounds.

In order to insure accuracy, the blood pressure of each girl was taken four or five times with short intervals between, and it is this feature of the work which brought to light differences between the results for the mentally normal girls and those for the feeble-minded ones.

After the work was well under way, I noted that about in three quarters of the cases the four or five successive readings of the diastolic pressure of the same girl were practically identical. In about one quarter of the cases the readings, although made within short intervals of each other, showed marked variations. Moreover, I noted that in a number of these cases the girls were plainly feeble-minded.

This led to an extension of the individual records by making transcripts of the data of the institution as to the mental status of all these girls. As a final result, complete records for 196 girls were obtained.

The cases were then ranked in regular order from those showing the least variation in diastolic pressure in four successive readings to those showing the most variation. The most regular cases, showing an aggregate variation of from 0 to 4 millimeters in four successive readings, numbered 129, and of these only nine, or seven per cent., were recorded as feeble-minded. The next group, showing a variation of from six to eight millimeters, numbered 25, and here 11, or 44 per cent., were feeble-minded.

The most irregular group, showing a variation of from 10 to 36 millimeters, numbered 42, and of these 42, or 100 per cent., were feeble-minded.

It seems clear that, whatever the cause may be, we have here an extremely high correlation between unstable diastolic blood pressure and feeble-mindedness. The degree of this correlation is difficult to measure, for the reason that while the blood pressure readings are variable, proceeding from low to high, the mental condition is recorded as an attribute and all the girls are considered as being either normal or feeble-minded.

To overcome this difficulty I have arbitrarily divided the girls into two groups, considering all with an aggregate of 4 millimeters of variation in the four tests as having regular or stable diastolic blood pressure and all with an aggregate of more than four millimeters variation as having unstable or irregular diastolic pressure. This gives 129 cases with stable blood pressure, of whom nine are feeble-minded, and 67 with unstable blood pressure, of whom 53 are feeble-minded.

On this basis the correlation between unstable diastolic blood pressure and feeble-mindedness may be readily computed by Yule's formula[1] for the coefficient of tetrachoric colligation found by means of the four-fold table. If there were a perfect correlation, the coefficient would be one. On the basis of the data presented, it is found to be .97. If we con-

[1] *Journal of the Royal Statistical Society*, Volume LXXV., Part VI., pp. 579–642.

sider the dividing line between stable and unstable pressure to fall between 6 and 8 millimeters, and again compute the correlation, the coefficient becomes .98 instead of .97. On either basis the correlation is extremely high.

After the completion of the investigation I made tests on 16 children brought to the psychological clinic of the University of Pennsylvania, and found that four of them showed unstable blood pressure. Three of these children were feeble-minded, while the only case of unstable blood pressure in a child of normal mentality was that of a twelve-year-old boy suffering from a disease of the pituitary gland.

All of these findings are suggestive but not conclusive. It has, however, been shown that unstable diastolic blood pressure is in many cases a prominent physiological feature accompanying feeble-mindedness. Three interpretations may be considered. The first is that in the cases examined the excitement caused by making the tests markedly affected the vasomotor system. This seems highly improbable, for the girls, when tested, showed no sign of nervousness, but rather seemed pleased at being the center of attention.

A second interpretation would be that the unstable blood pressure is merely an accompanying symptom of a generally low physiological condition and has no special significance in relation to feeble-mindedness.

A third interpretation would link the two phenomena more closely for the following reasons. The blood vessels of the brain have no important vasomotor nervous control, and are essentially passive channels. They depend for adjustment in the supply of blood largely upon vasomotor control in other parts of the body. If this is disturbed, as, for example, by the well-known solar-plexus blow, brain anemia may result with accompanying loss of consciousness. Thus it is conceivable that there may be some relation between the unstable pressure and the blood supply to the brain, and that this might result in a failure of the brain to function properly.

SUMMARY

1. Records were obtained for 196 girls, giving the results of four successive readings for diastolic blood pressure in each case and further records were secured showing the mental status of each girl.

2. Among these girls, only seven per cent. of those classed as having stable diastolic blood pressure were feeble-minded. Among those having a moderate degree of instability, 44 per cent. were feeble-minded. Among those having a marked degree of unstable blood pressure, 100 per cent. were feeble-minded.

3. Among these girls there is a high correlation between unstable diastolic blood pressure and feeble-mindedness.

4. This condition might be explained as a symptom of generally poor physiological condition among the feeble-minded girls or it might be considered as indicating a causal relationship between unstable blood supply to the brain and mal-functioning of the brain.

5. The data presented should be considered as suggestive but not conclusive, and further study should be devoted to the subject.

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SOCIETIES AND MEETINGS

THE SOCIETY OF OHIO COLLEGE TEACHERS OF EDUCATION

A CONFERENCE of Ohio college teachers of education called by the department of education of the College of Wooster held a meeting at Wooster on January 22 and 23. It was the first convention of its kind in Ohio, being the initial step in creating a permanent state association. About twenty of the leading colleges and universities of Ohio were represented by one or more members from their faculties.

An association was organized to be known as the Society of Ohio College Teachers of Education. Professor A. J. Miller, of the College of Wooster, was elected temporary chairman and Professor T. B. Birch, of Wittenberg College, temporary secretary. A constitution was adopted and provisions made for an election of permanent officers at a second meeting to be called by the chairman during the February session of the department of superintendence at Cincinnati.

The organization will meet annually for the

discussion of educational problems in general, and especially for the consideration of those affecting the schools of Ohio. The recent legislation on the certification of teachers is compelling our colleges to adapt their curricula to the requirements of the state if their graduates are to be permitted to teach in first class high schools without examination. The society desires to cooperate with the state in elevating the professional standard of teachers and to assist in standardizing the professional requirements of the various colleges offering courses in education.

Dr. W. M. Davidson, superintendent of the Pittsburgh public schools, made the opening address and papers were presented on "The organization of a Society of Ohio College Teachers of Education" by Dr. L. F. Anderson, of Ohio State University; on "The administration of practical teaching for secondary teachers" by Professor A. R. Mead, of Ohio Wesleyan University, and on "The efficiency of scientific measurements in education" by Dr. J. Crosby Chapman, of Western Reserve University.

The association adopted the following resolution:

> We approve the present school legislation in all of its essential principles. We approve the standards set by these laws and the state department of public instruction in their administration of them as a beginning of a new era in public education in Ohio. We oppose any changes that will disturb these principles or lower the standards.

THE CONFERENCE OF CHARITIES AND CORRECTION

Announcement has been made from the headquarters' office of the National Conference of Charities and Correction of the preliminary program for its forty-second annual meeting at Baltimore, Maryland, May 12 to 19. The conference will meet under the presidency of Mrs. John M. Glenn, of New York.

The program contains the names of over fifty leading charity workers and penologists, and it is anticipated that the unprecedented social situation of the present year will result in a conference of unique values. The program on "The Family and the Community" will result in considerable discussion of methods of treating individual cases of poverty, as, for example, in a study of the "Psychology of Cooperation." Professor Henry R. Seager, of Columbia University, will give an address on the "Causes and Remedies of Unemployment."

A series of unique discussions from an educational standpoint is being arranged under the committee on education for social work, under the chairmanship and vice-chairmanship respectively of Porter R. Lee of the New York School of Philanthropy, and Miss Edith Abbott of the Chicago School of Civics and Philanthropy. There has been an enormous increase in recent years in the number of people engaged professionally and on a volunteer basis in the solution of practical social problems, and this committee is attempting to determine the standards of this young profession and to give it a logical and proper adjustment to the other longer established professions. The discussion will include a treatment of the curriculum for training social workers and the relation of social theory to practical situations.

The program on "Children" will include a study of comprehensive community plans in work for children and practical results of children's agencies in respect to rehabilitation. It is the expectation of the chairman of this section, Mr. C. C. Carstens of Boston, to make as clear a statement as possible of the relations of social agencies in treatment of children to other agencies for constructive and preventive work.

Other divisions of the program relate to the following subjects: corrections, health, public and private charities, social hygiene, social legislation and state care of the insane, feeble-minded and epileptic. Among the speakers are: Professor Edward T. Devine, of Columbia University; Dr. William H. Welch and Dr. Adolf Meyer, of Johns Hopkins University; Dr. Charles P. Emerson, of Indiana University; Dr. H. H. Goddard, of the Training School for the Feeble-minded at Vineland, N. J., and Dr. C. B. Davenport, of the Eugenics Laboratory, Cold Spring Harbor, N. Y.